

# **Storm Water Management Plan For Priority Projects (Major SWMP)**

Project Name:	Day Street TM
Permit Number (Land Development Projects):	
Work Authorization Number (CIP):	
Applicant:	Ernest H Grabbe, Jr.
Applicant's Address:	12527 Kirkham Ct, Poway, CA 92064
Plan Prepare By ( <i>Leave blank if same as applicant</i> ):	
Date:	February 4, 2008
Revision Date (If applicable):	

The County of San Diego Watershed Protection, Storm Water Management, and Discharge Control Ordinance (WPO) (Ordinance No. 9424) requires all applications for a permit or approval associated with a Land Disturbance Activity must be accompanied by a Storm Water Management Plan (SWMP) (section 67.804.f). The purpose of the SWMP is to describe how the project will minimize the short and long-term impacts on receiving water quality. Projects that meet the criteria for a priority project are required to prepare a Major SWMP.

Since the SWMP is a living document, revisions may be necessary during various stages of approval by the County. Please provide the approval information requested below.

Project Review Stage	Does the SWMP need revisions?		If YES, Provide Revision Date
	YES	NO	
Initial Submittal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	

Instructions for a Major SWMP can be downloaded at <http://www.co.san-diego.ca.us/dpw/stormwater/susmp.html>.

Completion of the following checklist and attachments will fulfill the requirements of a Major SWMP for the project listed above.

## **PROJECT DESCRIPTION**

Please provide a brief description of the project in the following box. For example:

The 50-acre RC Ranch project is located on the south side of San Miguel Road in the County of San Diego (See Attachment 1). The project is approximately 1.0 mile east of the intersection of San Miguel Avenue and San Miguel Road and 1 mile south of the Sweetwater Reservoir. This project will consist of a planned residential community comprising of 45 single-family homes 72 and multi-unit dwellings.

The 2.96 acre project is located east of Day Street and south of La Brea Street in Ramona in the County of

San Diego (See Attachment 1). The project is one block north of Main Street (Highway 67) in Ramona. The project will consist of a planned residential community comprising 32 attached single-family dwellings.

### PRIORITY PROJECT DETERMINATION

Please check the box that best describes the project. Does the project meet one of the following criteria?

PRIORITY PROJECT	YES	NO
Redevelopment within the County Urban Area that creates or adds at least 5,000 net square feet of additional impervious surface area	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Residential development of more than 10 units	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Commercial developments with a land area for development of greater than 100,000 square feet	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Automotive repair shops	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Restaurants, where the land area for development is greater than 5,000 square feet	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hillside development, in an area with known erosive soil conditions, where there will be grading on any natural slope that is twenty-five percent or greater, if the development creates 5,000 square feet or more of impervious surface	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmentally Sensitive Areas: All development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (where discharges from the development or redevelopment will enter receiving waters within the environmentally sensitive area), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parking Lots 5,000 square feet or more or with 15 parking spaces or more and potentially exposed to urban runoff	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Streets, roads, highways, and freeways which would create a new paved surface that is 5,000 square feet or greater	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Limited Exclusion:** Trenching and resurfacing work associated with utility projects are not considered priority projects. Parking lots, buildings and other structures associated with utility projects are subject to SUSMP requirements if one or more of the criteria above are met.

If you answered **NO** to all the questions, then **STOP**. Please complete a Minor SWMP for your project.

If you answered **YES** to any of the questions, please continue.

The following questions provide a guide to collecting information relevant to project stormwater quality issues. Please provide a description of the findings in text box below.

	QUESTIONS	COMPLETED	NA
1.	Describe the topography of the project area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.	Describe the local land use within the project area and adjacent areas.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3.	Evaluate the presence of dry weather flow.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.	For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	Determine if there are any High Risk Areas (municipal or domestic water supply reservoirs or groundwater percolation facilities) within the project limits.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Determine the Regional Board special requirements, including TMDLs, effluent limits, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9.	If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10.	Determine contaminated or hazardous soils within the project area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please provide a description of the findings in the following box. For example:

The project is located in the San Diego Hydrologic unit. The area is characterized by rolling grassy hills and shrubs. Runoff from the project drains into a MS4 that eventually drains to Los Coches Creek. Within the project limit there are no 303(d) impaired receiving water and no Regional Board special requirements.

The project is located in the San Dieguito Hydrologic unit. The immediate area is characterized by rolling grassy hills. The project area is surrounded by commercial retail development and multi-family dwellings. Runoff from the project drains into a MS4 that eventually drains to Santa Maria Creek, thence to the San Dieguito River and through Lake Hodges. There are no 303(d) impaired water bodies affected by the project, but Lake Hodges is on the list. There are no regional board special requirements for this project nor are there any high risk areas, hazardous materials or dry weather flows. The climate is dry and temperate.

Complete the checklist below to determine if Treatment Best Management Practices (BMPs) are required for the project.

No.	CRITERIA	YES	NO	INFORMATION
1.	Is this an emergency project	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If YES, go to 6. If NO, continue to 2.
2.	Have TMDLs been established	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If YES, go to 5.

No.	CRITERIA	YES	NO	INFORMATION
	for surface waters within the project limit?			If NO, continue to 3.
3.	Will the project directly discharge to a 303(d) impaired receiving water body?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If YES, go to 5. If NO, continue to 4.
4.	Is this project within the urban and environmentally sensitive areas as defined on the maps in Appendix B of the <i>County of San Diego Standard Urban Storm Water Mitigation Plan for Land Development and Public Improvement Projects</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If YES, continue to 5. If NO, go to 6.
5.	Consider approved Treatment BMPs for the project.	<input type="checkbox"/>	<input type="checkbox"/>	If YES, go to 7.
6.	Project is not required to consider Treatment BMPs			Document for Project Files by referencing this checklist.
7.	End			

Now that the need for a treatment BMPs has been determined, other information is needed to complete the SWMP.

## WATERSHED

Please check the watershed(s) for the project.

- |                                                  |                                          |                                       |                                           |
|--------------------------------------------------|------------------------------------------|---------------------------------------|-------------------------------------------|
| <input type="checkbox"/> San Juan                | <input type="checkbox"/> Santa Margarita | <input type="checkbox"/> San Luis Rey | <input type="checkbox"/> Carlsbad         |
| <input checked="" type="checkbox"/> San Dieguito | <input type="checkbox"/> Penasquitos     | <input type="checkbox"/> San Diego    | <input type="checkbox"/> Pueblo San Diego |
| <input type="checkbox"/> Sweetwater              | <input type="checkbox"/> Otay            | <input type="checkbox"/> Tijuana      |                                           |

Please provide the hydrologic sub-area and number(s)

Number	Name
5.41	Ramona

Please provide the beneficial uses for Inland Surface Waters and Ground Waters. Beneficial Uses can be obtained from the Water Quality Control Plan For The San Diego Basin, which is available at the Regional Board office or at <http://www.swrcb.ca.gov/rwqcb9/programs/basinplan.html>.

SURFACE WATERS	Hydrologic Unit Basin Number	MUN	AGR	IND	PROC	GWR	FRESH	POW	REC1	REC2	BIOL	WARM	COLD	WILD	RARE	SPWN
<b>Inland Surface Waters</b>																
<b>Ground Waters</b>																

X Existing Beneficial Use

0 Potential Beneficial Use

\* Excepted from Municipal

## POLLUTANTS OF CONCERN

Using Table 1, identify pollutants that are anticipated to be generated from the proposed priority project categories. Pollutants associated with any hazardous material sites that have been remediated or are not threatened by the proposed project are not considered a pollutant of concern.

**Table 1. Anticipated and Potential Pollutants Generated by Land Use Type**

<i>Priority Project Categories</i>	<i>General Pollutant Categories</i>								
	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Detached Residential Development	X	X			X	X	X	X	X
Attached Residential Development	X	X			X	P <sup>(1)</sup>	P <sup>(2)</sup>	P	X
Commercial Development >100,000 ft <sup>2</sup>	P <sup>(1)</sup>	P <sup>(1)</sup>		P <sup>(2)</sup>	X	P <sup>(5)</sup>	X	P <sup>(3)</sup>	P <sup>(5)</sup>
Automotive Repair Shops			X	X <sup>(4)(5)</sup>	X		X		
Restaurants					X	X	X	X	
Hillside Development >5,000 ft <sup>2</sup>	X	X			X	X	X		X

	<i>General Pollutant Categories</i>								
<i>Priority Project Categories</i>	Sediments	Nutrients	Heavy Metals	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Oil & Grease	Bacteria & Viruses	Pesticides
Parking Lots	p <sup>(1)</sup>	p <sup>(1)</sup>	X		X	p <sup>(1)</sup>	X		p <sup>(1)</sup>
Streets, Highways & Freeways	X	p <sup>(1)</sup>	X	X <sup>(4)</sup>	X	p <sup>(5)</sup>	X		
X = anticipated P = potential (1) A potential pollutant if landscaping exists on-site. (2) A potential pollutant if the project includes uncovered parking areas. (3) A potential pollutant if land use involves food or animal waste products. (4) Including petroleum hydrocarbons. (5) Including solvents.									

**Note:** If other monitoring data that is relevant to the project is available. Please include as Attachment C.

### CONSTRUCTION BMPs

Please check the construction BMPs that may be used. The BMPs selected are those that will be implemented during construction of the project. The applicant is responsible for the placement and maintenance of the BMPs selected.

- |                                                                                                                                                                                                                                                                                                                                                      |                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Silt Fence                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/> Desilting Basin                           |
| <input checked="" type="checkbox"/> Fiber Rolls                                                                                                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Gravel Bag Berm                |
| <input checked="" type="checkbox"/> Street Sweeping and Vacuuming                                                                                                                                                                                                                                                                                    | <input checked="" type="checkbox"/> Sandbag Barrier                |
| <input checked="" type="checkbox"/> Storm Drain Inlet Protection                                                                                                                                                                                                                                                                                     | <input checked="" type="checkbox"/> Material Delivery and Storage  |
| <input checked="" type="checkbox"/> Stockpile Management                                                                                                                                                                                                                                                                                             | <input checked="" type="checkbox"/> Spill Prevention and Control   |
| <input checked="" type="checkbox"/> Solid Waste Management                                                                                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> Concrete Waste Management      |
| <input checked="" type="checkbox"/> Stabilized Construction Entrance/Exit                                                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> Water Conservation Practices   |
| <input checked="" type="checkbox"/> Dewatering Operations                                                                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> Paving and Grinding Operations |
| <input checked="" type="checkbox"/> Vehicle and Equipment Maintenance                                                                                                                                                                                                                                                                                |                                                                    |
| <input checked="" type="checkbox"/> Any minor slopes created incidental to construction and not subject to a major or minor grading permit shall be protected by covering with plastic or tarp prior to a rain event, and shall have vegetative cover reestablished within 180 days of completion of the slope and prior to final building approval. |                                                                    |

### SITE DESIGN

To minimize stormwater impacts, site design measures must be addressed. The following checklist provides options for avoiding or reducing potential impacts during project planning. If

YES is checked, it is assumed that the measure was used for this project. If NO is checked, please provide a brief explanation why the option was not selected in the text box below.

	OPTIONS	YES	NO	N/A
1.	Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Can the project be designed to minimize impervious footprint?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Conserve natural areas where feasible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Where landscape is proposed, can rooftops, impervious sidewalks, walkways, trails and patios be drained into adjacent landscaping?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	For roadway projects, can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Can any of the following methods be utilized to minimize erosion from slopes:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6.a. Disturbing existing slopes only when necessary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6.b. Minimize cut and fill areas to reduce slope lengths?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6.c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6.d. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	6.e. Rounding and shaping slopes to reduce concentrated flow?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6.f. Collecting concentrated flows in stabilized drains and channels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please provide a brief explanation for each option that was checked N/A or NO in the following box.

6.d. There are no high cut or fill slopes resulting from this project.
------------------------------------------------------------------------

If the project includes work in channels, then complete the following checklist. Information shall be obtained from the project drainage report.

There will be no work in channels.

No.	CRITERIA	YES	NO	N/A	COMMENTS
1.	Will the project increase velocity or volume of downstream flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If YES go to 5.
2.	Will the project discharge to unlined channels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If YES go to 5.
3.	Will the project increase potential sediment load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If YES go to 5.

No.	CRITERIA	YES	NO	N/A	COMMENTS
	of downstream flow?				
4.	Will the project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect upstream and/or downstream channel stability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If YES go to 7.
5.	Review channel lining materials and design for stream bank erosion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Continue to 6.
6.	Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Continue to 7.
7.	Include, where appropriate, energy dissipation devices at culverts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Continue to 8.
8.	Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Continue to 9.
9.	Include, if appropriate, detention facilities to reduce peak discharges.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10.	“Hardening” natural downstream areas to prevent erosion is not an acceptable technique for protecting channel slopes, unless pre-development conditions are determined to be so erosive that hardening would be required even in the absence of the proposed development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Continue to 11.
11.	Provide other design principles that are comparable and equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Continue to 12.
12.	End				

## SOURCE CONTROL

Please complete the following checklist for Source Control BMPs. If the BMP is not applicable for this project, then check N/A only at the main category.

BMP			YES	NO	N/A
1.	<b>Provide Storm Drain System Stenciling and Signage</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1.a.	All storm drain inlets and catch basins within the project area shall have a stencil or tile placed with prohibitive language (such as: “NO DUMPING – DRAINS TO _____”) and/or graphical icons to discourage illegal dumping.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1.b.	Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	<b>Design Outdoors Material Storage Areas to Reduce Pollution Introduction</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2.a.	This is a detached single-family residential project. Therefore, personal storage areas are exempt from this requirement.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



<b>BMP</b>		<b>YES</b>	<b>NO</b>	<b>N/A</b>
2.b.	Hazardous materials with the potential to contaminate urban runoff shall either be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.c.	The storage area shall be paved and sufficiently impervious to contain leaks and spills.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.d.	The storage area shall have a roof or awning to minimize direct precipitation within the secondary containment area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<b>Design Trash Storage Areas to Reduce Pollution Introduction</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.a.	Paved with an impervious surface, designed not to allow run-on from adjoining areas, screened or walled to prevent off-site transport of trash; or,	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.b.	Provide attached lids on all trash containers that exclude rain, or roof or awning to minimize direct precipitation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<b>Use Efficient Irrigation Systems &amp; Landscape Design</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The following methods to reduce excessive irrigation runoff shall be considered, and incorporated and implemented where determined applicable and feasible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.a.	Employing rain shutoff devices to prevent irrigation after precipitation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.b.	Designing irrigation systems to each landscape area's specific water requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.c.	Using flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.d.	Employing other comparable, equally effective, methods to reduce irrigation water runoff.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<b>Private Roads</b> and Public Road improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The design of private roadway drainage shall use at least one of the following	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.a.	Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.b.	Urban curb/swale system: street slopes to curb, periodic swale inlets drain to vegetated swale/biofilter.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.c.	Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to storm water conveyance system.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.d.	Other methods that are comparable and equally effective within the project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.	<b>Residential Driveways &amp; Guest Parking</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	The design of driveways and private residential parking areas shall use one at least of the following features.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.a.	Design driveways with shared access, flared (single lane at street) or wheelstrips (paving only under tires); or, drain into landscaping prior to discharging to the storm water conveyance system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.b.	Uncovered temporary or guest parking on private residential lots may be: paved with a permeable surface; or, designed to drain into landscaping prior to discharging to the storm water conveyance system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.c.	Other features which are comparable and equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	<b>Dock Areas</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BMP		YES	NO	N/A
	Loading/unloading dock areas shall include the following.			
7.a.	Cover loading dock areas, or design drainage to preclude urban run-on and runoff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.b.	Direct connections to storm drains from depressed loading docks (truck wells) are prohibited.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.c.	Other features which are comparable and equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<b>Maintenance Bays</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Maintenance bays shall include the following.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.a.	Repair/maintenance bays shall be indoors; or, designed to preclude urban run-on and runoff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.b.	Design a repair/maintenance bay drainage system to capture all wash water, leaks and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.c.	Other features which are comparable and equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	<b>Vehicle Wash Areas</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Priority projects that include areas for washing/steam cleaning of vehicles shall use the following.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.a.	Self-contained; or covered with a roof or overhang.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.b.	Equipped with a clarifier or other pretreatment facility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.c.	Properly connected to a sanitary sewer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.d.	Other features which are comparable and equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	<b>Outdoor Processing Areas</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Outdoor process equipment operations, such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, waste piles, and wastewater and solid waste treatment and disposal, and other operations determined to be a potential threat to water quality by the County shall adhere to the following requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.a.	Cover or enclose areas that would be the most significant source of pollutants; or, slope the area toward a dead-end sump; or, discharge to the sanitary sewer system following appropriate treatment in accordance with conditions established by the applicable sewer agency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.b.	Grade or berm area to prevent run-on from surrounding areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.c.	Installation of storm drains in areas of equipment repair is prohibited.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.d.	Other features which are comparable or equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	<b>Equipment Wash Areas</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Outdoor equipment/accessory washing and steam cleaning activities shall be.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.a.	Be self-contained; or covered with a roof or overhang.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.b.	Be equipped with a clarifier, grease trap or other pretreatment facility, as appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.c.	Be properly connected to a sanitary sewer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.d.	Other features which are comparable or equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	<b>Parking Areas</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The following design concepts shall be considered, and incorporated and implemented where determined applicable and feasible by the County.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.a.	Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BMP			YES	NO	N/A
	12.b.	Overflow parking (parking stalls provided in excess of the County's minimum parking requirements) may be constructed with permeable paving.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	12.c.	Other design concepts that are comparable and equally effective.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13.	<b>Fueling Area</b>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Non-retail fuel dispensing areas shall contain the following.				
	13.a.	Overhanging roof structure or canopy. The cover's minimum dimensions must be equal to or greater than the area within the grade break. The cover must not drain onto the fuel dispensing area and the downspouts must be routed to prevent drainage across the fueling area. The fueling area shall drain to the project's treatment control BMP(s) prior to discharging to the storm water conveyance system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13.b.	Paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13.c.	Have an appropriate slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of urban runoff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	13.d.	At a minimum, the concrete fuel dispensing area must extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please list other project specific Source Control BMPs in the following box. Write N/A if there are none and briefly explain.

N/A

## TREATMENT CONTROL

To select a structural treatment BMP using Treatment Control BMP Selection Matrix (Table 2), each priority project shall compare the list of pollutants for which the downstream receiving waters are impaired (if any), with the pollutants anticipated to be generated by the project (as identified in Table 1). Any pollutants identified by Table 1, which are also causing a Clean Water Act section 303(d) impairment of the receiving waters of the project, shall be considered primary pollutants of concern. Priority projects that are anticipated to generate a primary pollutant of concern shall select a single or combination of stormwater BMPs from Table 2, which **maximizes pollutant removal** for the particular primary pollutant(s) of concern.

Priority projects that are **not** anticipated to generate a pollutant for which the receiving water is Clean Water Act Section 303(d) impaired shall select a single or combination of stormwater BMPs from Table 2, which are effective for pollutant removal of the identified secondary pollutants of concern, consistent with the "maximum extent practicable" standard.

**Table 2. Treatment Control BMP Selection Matrix**

Pollutant of Concern	Treatment Control BMP Categories						
	Biofilters	Detention Basins	Infiltration Basins <sup>(2)</sup>	Wet Ponds or Wetlands	Drainage Inserts	Filtration	Hydrodynamic Separator Systems <sup>(3)</sup>
Sediment	M	H	H	H	L	H	M
Nutrients	L	M	M	M	L	M	L
Heavy Metals	M	M	M	H	L	H	L
Organic Compounds	U	U	U	M	L	M	L
Trash & Debris	L	H	U	H	M	H	M
Oxygen Demanding Substances	L	M	M	M	L	M	L
Bacteria	U	U	H	H	L	M	L
Oil & Grease	M	M	U	U	L	H	L
Pesticides	U	U	U	L	L	U	L
<p>(1) Copermitees are encouraged to periodically assess the performance characteristics of many of these BMPs to update this table.</p> <p>(2) Including trenches and porous pavement.</p> <p>(3) Also known as hydrodynamic devices and baffle boxes.</p> <p>L: Low removal efficiency:  M: Medium removal efficiency:  H: High removal efficiency:  U: Unknown removal efficiency</p> <p>Sources: <i>Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters</i> (1993), <i>National Stormwater Best Management Practices Database</i> (2001), <i>Guide for BMP Selection in Urban Developed Areas</i> (2001), and <i>Caltrans New Technology Report</i> (2001).</p>							

A Treatment BMP must address runoff from developed areas. Please provide the post-construction water quality values for the project. Label outfalls on the BMP map.  $Q_{WQ}$  is dependent on the type of treatment BMP selected for the project.

Outfall	Tributary Area (acres)	$Q_{100}$ (cfs)	$Q_{WQ}$ (cfs)
X	2.33	6.72	0.38

Please check the box(s) that best describes the Treatment BMP(s) selected for this project.

#### Biofilters

- ☒ Grass swale  
☐ Grass strip  
☐ Wetland vegetation swale  
☐ Bioretention

#### Detention Basins

- ☐ Extended/dry detention basin with grass lining  
☒ Extended/dry detention basin with impervious lining

**Infiltration Basins**

- ☐ Infiltration basin
- ☒ Infiltration trench
- ☐ Porous asphalt
- ☐ Porous concrete
- ☐ Porous modular concrete block

**Wet Ponds or Wetlands**

- ☐ Wet pond/basin (permanent pool)
- ☐ Constructed wetland

**Drainage Inserts** (See note below)

- ☐ Oil/Water separator
- ☐ Catch basin insert
- ☐ Storm drain inserts
- ☐ Catch basin screens

**Filtration**

- ☐ Media filtration
- ☐ Sand filtration

**Hydrodynamic Separator Systems**

- ☐ Swirl Concentrator
- ☒ Cyclone Separator
- ☐ Baffle Separator
- ☐ Gross Solids Removal Device
- ☐ Linear Radial Device

**Note:** Catch basin inserts and storm drain inserts are excluded from use on County maintained right-of-way and easements.

Include Treatment Datasheet as Attachment E. The datasheet should include the following:	COMPLETED	NO
1. Description of how treatment BMP was designed. Provide a description for each type of treatment BMP.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Engineering calculations for the BMP(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Please describe why the selected treatment BMP(s) was selected for this project. For projects utilizing a low performing BMP, please provide a detailed explanation and justification.

Grass swales were chosen for the onsite runoff for this project because they are highly effective at removing the types of potential pollutants that may be generated from this project. The runoff from the widened streets is routed to infiltration trenches and gravel filtration before entering the storm drain system. The entire storm runoff is routed through a cyclone separator to remove any uncollected debris.

**MAINTENANCE**

Please check the box that best describes the maintenance mechanism(s) for this project.

CATEGORY	SELECTED	
	YES	NO
First	x	
Second		
Third		
Fourth	x	

Please briefly describe the long-term fiscal resources for the selected maintenance mechanism(s).

The bio-swale treatment BMP's require only minor maintenance and the financial responsibility for that maintenance will be the property's owner's, successors and or assigns, in perpetuity. The curb inlet filter inserts will be publicly maintained and funded by the county and will require dedication to the FCD or County.

## ATTACHMENTS

Please include the following attachments.

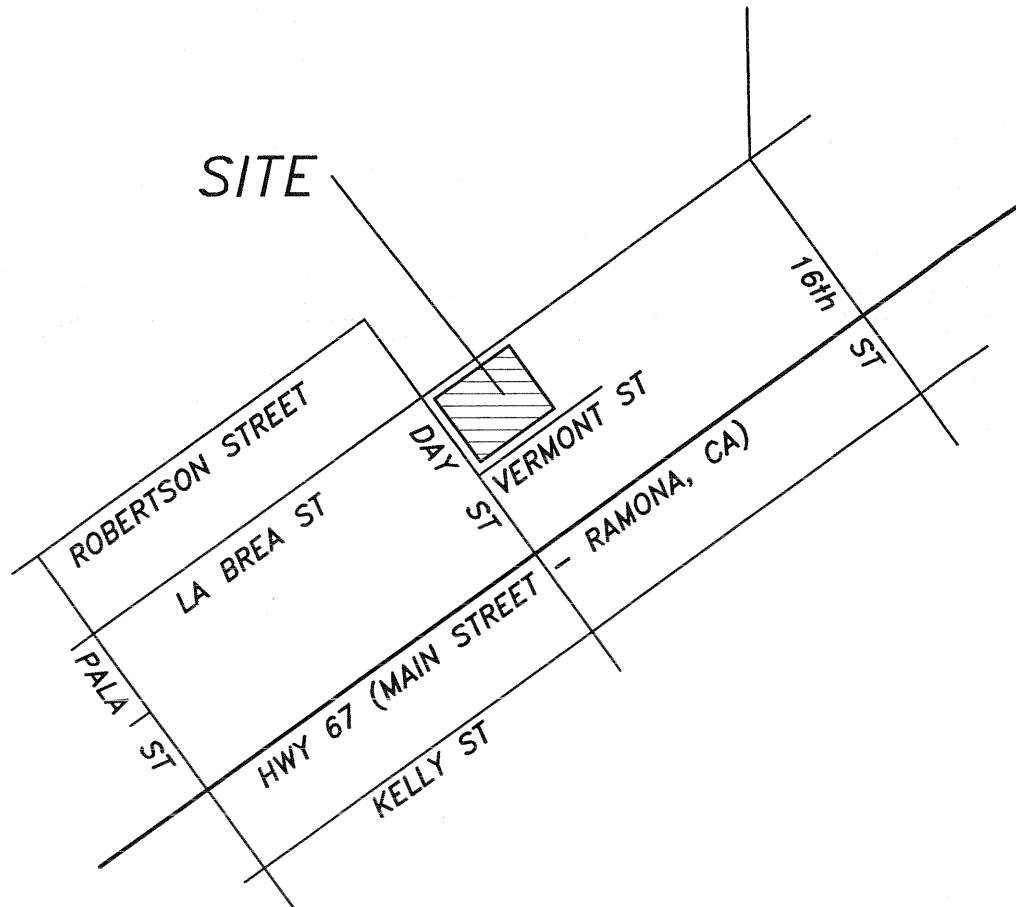
ATTACHMENT		COMPLETED	N/A
A	Project Location Map	x	
B	Site Map	x	
C	Relevant Monitoring Data		x
D	Treatment BMP Location Map	x	
E	Treatment BMP Datasheets	x	
F	Operation and Maintenance Program for Treatment BMPs	x	
G	Engineer's Certification Sheet	x	

**Note:** Attachments A and B may be combined.

# **ATTACHMENT A**

## **LOCATION MAP**

# RAMONA



**VICINITY MAP**  
NO SCALE



P.O. BOX 781 POWAY, CA 92074 (858)748-8333 FAX (858)748-8412

## **SITE LOCATION MAP**

COBLE HOMES SUBDIVISION  
920 'H' STREET  
RAMONA, CA 92065

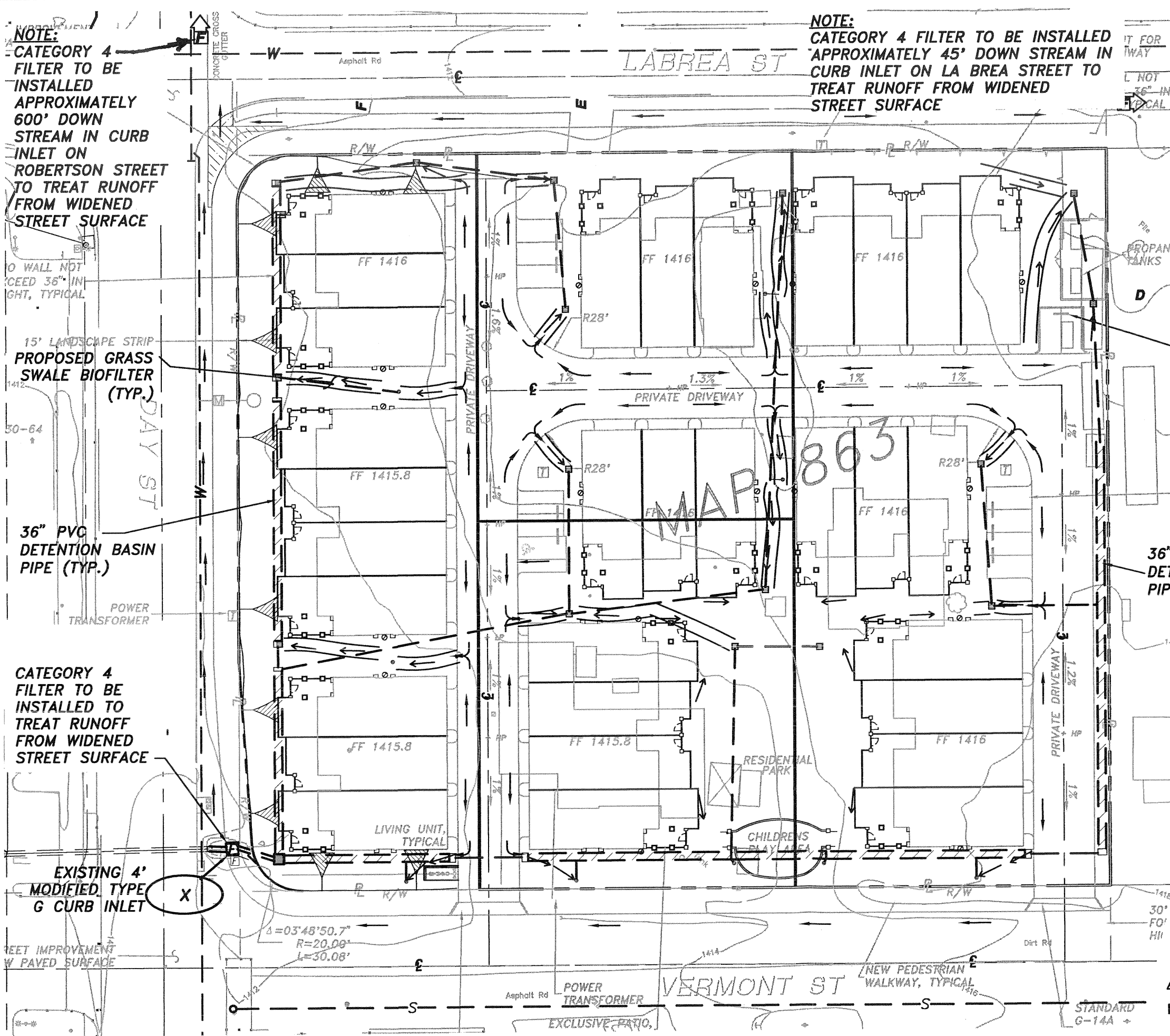


# **ATTACHMENT B**

## **PROJECT SITE MAP**

# **ATTACHMENT D**

## **TREATMENT BMP LOCATION MAP**



**NOTE:**  
 CATEGORY 4  
 FILTER TO BE  
 INSTALLED  
 APPROXIMATELY  
 600' DOWN  
 STREAM IN CURB  
 INLET ON  
 ROBERTSON STREET  
 TO TREAT RUNOFF  
 FROM WIDENED  
 STREET SURFACE

NO WALL NOT  
 EXCEED 36" IN  
 HEIGHT, TYPICAL

15' LANDSCAPE STRIP  
 PROPOSED GRASS  
 SWALE BIOFILTER  
 (TYP.)

36" PVC  
 DETENTION BASIN  
 PIPE (TYP.)

CATEGORY 4  
 FILTER TO BE  
 INSTALLED TO  
 TREAT RUNOFF  
 FROM WIDENED  
 STREET SURFACE

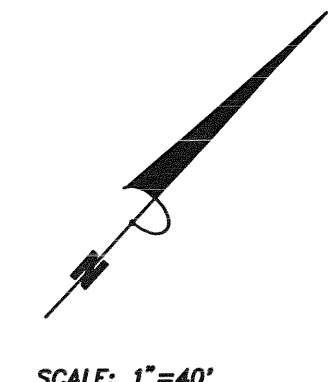
EXISTING 4'  
 MODIFIED TYPE  
 G CURB INLET

STREET IMPROVEMENT  
 W/ PAVED SURFACE

**NOTE:**  
 CATEGORY 4 FILTER TO BE INSTALLED  
 APPROXIMATELY 45' DOWN STREAM IN  
 CURB INLET ON LA BREA STREET TO  
 TREAT RUNOFF FROM WIDENED  
 STREET SURFACE

# **LEGEND**

- PROPERTY LINE
- STREET CENTER LINE
- EASEMENT LINE
- DIRECTION OF FLOW IN STREET
- LANDSCAPE/ BIOFILTRATION
- 36" DETENTION DRAIN LINE
- ROOFTOP DOWN DRAINS TYPICAL
- CATEGORY 4 STORM DRAIN FILTER



**BMP LOCATION MAP  
 POST-CONSTRUCTION**  
 PASEO VILLAGE TOWNHOMES  
 DAY STREET,  
 RAMONA, CA 92065

**Tri-Dimensional Engineering, Inc.**  
 ENGINEERING • PLANNING • SURVEYING  
 P.O. BOX 781 POWAY, CA 92074 (858)748-8333 FAX (858)748-8412

# ATTACHMENT E

## TREATMENT BMP DATASHEET

*(NOTE: POSSIBLE SOURCE FOR DATASHEETS CAN BE FOUND AT  
[WWW.CABMPHANDBOOKS.COM](http://WWW.CABMPHANDBOOKS.COM). INCLUDE ENGINEERING CALCULATIONS FOR SIZING THE  
TREATMENT BMP.)*

## TREATMENT BMP DATA SHEET

THERE IS ONE OUTFALL OF DIRECT RUNOFF FROM THIS PROJECT, BASIN X.

PER SUSMP 4.3.2.1, FLOW BASED DESIGN  $I = 0.2 \text{ in/hr}$

USING  $I = 0.2 \text{ in/hr}$ ,  $C = 0.82$ ,  $A = 2.33 \text{ ACRES}$

$$Q = CIA = (0.2)(0.82)(2.33) = 0.38 \text{ CFS}$$

THE BASIN, X FLOWS THROUGH GRASS LINED SWALES THROUGHOUT THE SITE. THE 475' OF GRASS LINED SWALES ARE MORE THAN CAPABLE OF PROVIDING ADEQUATE FILTRATION TO ELIMINATE POTENTIAL POLLUTANTS TO THE MAXIMUM EXTENT PRACTICABLE.

Flow Characteristics - Determine Tc and Q

Flow ID	Natural Flows		Pipe/Urban Flows				(P=3.45)		A (acres)	Qmax (cfs)	
	H (ft)	L (ft)	Time (nat) (min)	Vel (fps)	Dist (ft)	Time (urb) (min)	#VALUE! (min)	I* (in/hr)			
X.2								0.20	0.82	0.14	0.02

\* Per SUSMP 4.3.2.i Flow based design, I=0.2 in./hr.

Design of Treatment Control BMP										Results		
Flow ID	Flow Description	Width (ft)	Length (ft)	Chnnel Btm wdth(ft)	Lt side (ft:ft)	Rt side (ft:ft)	Slope n (dec)	Design Q (cfs)	Depth (ft)	Vel (fps)	Top width (ft)	
X.2	Grass Lined Swale Biofilter	5	47	0.5	9	9	0.01	0.035	0.023	0.09	0.95	2.67

Grass Lined Swale Biofilter Q < 0.1 CFS, Depth < 0.1' ft and Velocity < 1fps. Therefore it is adequate to minimize the development's potential detrimental effects on water quality to the maximum extent practical (MEP) when used in combination with the site's design and source control BMP's.

RECTANGULAR CHANNEL  
BIO-SWALE

DATE: 02-06-2007  
TIME: 16:29:53

(1) INVERT WIDTH (feet) ...	0.50	(2) Mannings n .....	.035
(3) SLOPE (ft/ft) .....	.0100	(4) Q (cfs) .....	0.02
(5) LEFT SIDE SLOPE (X to 1) .....	0.00	(6) RIGHT SIDE SLOPE (X to 1) ...	0.00
(7) DEPTH (ft) .....	0.07	TOP WIDTH (FT) ...	0.50
VELOCITY (fps) .....	0.62	VEL. HEAD (ft) ...	0.01
AREA (sq. ft) .....	0.04	P + M (pounds) ...	0
CRITICAL DEPTH .....	0.04	CRITICAL SLOPE ...	0.0605
CRITICAL VELOCITY .....	1.12	FROUDE NUMBER ....	0.40



# **ATTACHMENT F**

## **OPERATION AND MAINTENANCE PROGRAM FOR TREATMENT BMP**

*(NOTE: INFORMATION REGARDING OPERATION AND MAINTENANCE CAN BE OBTAINED  
FROM THE FOLLOWING WEB SITE:*

*[HTTP://WWW.SDCOUNTY.CA.GOV/DPW/WATERSHEDS/LAND\\_DEV/SUSMP.HTML.](http://www.sdcountry.ca.gov/dpw/watersheds/land_dev/susmp.html))*

**Table A - Recommended BMP Schedule and Cost Estimate**  
(repeat each year in perpetuity)

Date	Procedure Code (from Table B)	Estimated Costs (Per Annum)		
		Labor	Equipment	Materials
1-Oct	W1	\$25	\$15	\$15
	G1, G2	\$20	\$15	\$15
	F1, F2, F3	\$1,135	\$102	\$1,361
	D1, D2, D3	\$0	\$0	\$0
1-Jan	W1	\$25	\$15	\$15
	G1	\$0	\$0	\$0
	F1, F2, F3	\$60	\$15	\$250
	D1, D2, D3	\$0	\$0	\$0
1-Apr	W1, W2	\$50	\$20	\$20
	G1, G2	\$20	\$15	\$15
	F1, F2, F3	\$1,135	\$102	\$1,361
	D1, D2, D3	\$0	\$0	\$0
As needed (if dis- covered at insp.)	W3	\$15	\$30	\$30
	G3	\$15	\$30	\$30
	D1, D2, D3	\$0	\$0	\$0
		\$2,500	\$359	\$3,112
		Subtotals		

**\*\* Annual Estimate Total      \$5,971**

\* Maintenance of Filter Inserts in the Public Right of Way to be performed by County/FCD.

\*\* Estimate does not include costs that may be incurred for total replacement required as part of  
may be incurred for total replacement  
of major drainage features that may be  
the construction  
materials life cycle (i.e. a system re-build  
in 50 years or so)

**Table B - BMP Inspection, Maintenance, and Replacement Procedures**

<b>Definitions</b>		<b>(F) Grass Lined Swale Biofilter</b>	
<b>code</b>	<b>(W) Waste/Spill/General</b>	<b>(G) Ground Cover</b>	<b>(F1) Filter Inserts (3 offsite)</b>
<b>(1) Inspection</b>	<b>W1</b> Inspect site, especially motor vehicle areas, for spills of petroleum products, solvents, and other hazardous wastes.	<b>G1</b> Inspect site for signs of failure of ground cover to thrive, washing out or erosion below material, inspect irrigation system for signs of over or under watering	<b>D1**</b> Lift access covers for baffle box and remove debris from filter screen basket. Inspect below the filter basket and determine depth of sediment. If any. Replace filter basket and covers and properly dispose of debris.
<b>code</b>	<b>(W2)</b> Perform 'Inspection' duties. Remove & clean debris and any petroleum wastes  See Caltrans Guides if hazardous material spills have occurred and follow procedures outlined therein.	<b>G2</b> If needed, restore slope to previous condition, determine nature of failure, replace or repair faulty irrigation system components.	<b>D2**</b> Perform all 'Inspection' duties above. <del>AND</del> remove sediments from the basin bottom. Dispose of all materials in accordance with local, state, and federal regulations.
<b>(2) Maintenance</b> (Service)		<b>F2</b> Cut vegetation to an average height of 6", remove any trees or woody vegetation. Remove standing water. Remove sediment, scarify invert and regrade if necessary. Remove and dispose of trash and debris and sediment. Contact engineer if solution to any problem is not evident.	Inspect filter basket for signs of deterioration.
<b>code</b>	<b>(W3)</b>	<b>G3</b> Re-plant material if existing material is unrecoverable. Cover slopes if during rainy season with slope protection medium while plant material is maturing.	<b>D3**</b> Only if needed, replace deteriorated or failed filter basket system.
<b>(3) Replacement</b> (Media Change)			

\*\* Maintenance of Filter Inserts in the public Right of Way to be performed by FCD/County.

# ATTACHMENT G

## CERTIFICATION SHEET

This Stormwater Management Plan has been prepared under the direction of the following Registered Civil Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

Ernest H. Grabbe, Jr.  
Ernest H. Grabbe, Jr. RCE 47327

9-19-08  
Date



### **Project Description:**

The proposed Paseo Village Townhome development will consist of nine buildings, (5 triplexes and 4 quadplexes) with a total of 31 single family attached dwelling units on one lot of 2.28 net acres bounded by Day, La Brea and Vermont Streets in Ramona. The 31 two-story, three-bedroom units consist of a 1,532 square foot model and a 1,630 square foot model. Each unit will have a private open space area with a minimum of 350 square feet. The group open space will be in excess of 7,000 square feet. A twenty (20) foot landscape easement borders the front of the project along Day Street and fifteen (15) foot landscape easements border the project sides along La Brea and Vermont Streets.

Most of the relatively flat (2% to 5% average slope) site currently drains southwesterly to an open drain in the southwesterly corner of the site, thence via a County maintained underground drainage system to an open channel and thence to Santa Maria Creek. A small portion of the site drains northwesterly to an existing open swale that also drains to Santa Maria Creek. The proposed drainage will be routed through bio-filters to an underground collection and detention system that will limit the storm water discharge flows to the current, pre-development levels before discharge into the existing underground drainage system at the southwest corner of the site.

The topography of the site ranges from a low of 1411 feet MSL at the southwest corner of the site to a high of 1418 feet at the southeast corner of the site and midway along the northerly edge of the site. Grading of approximately 3,300 cubic yards, just over 100 cubic yards per unit, is proposed to raise the lower portions of the site to an elevation above the adjacent street levels, to enhance drainage on the site through bio-filtered swales and to enable an underground detention system to outfall into the existing offsite storm drainage system.

Potable and fire protection water for the project is currently available from Ramona Municipal Water District's public water distribution system in Day and La Brea Streets. Extensions of the existing water distribution system are not required to service the project. The potable water service for the project will be centrally located on Day Street. The units will be fully sprinkled for fire protection. Water for the fire protection systems will come from the existing water distribution system in Day Street, routed along the southerly property line parallel to Vermont Street to the main entry to project where an approved backflow preventor and fire department connection will be located.

The sanitary sewer system from the project will be routed to an existing sewer manhole in Vermont Street at the south east corner of the site per the requirements of the Ramona Municipal Water District. Extensions of the existing sewerage collection system are not required to service the project.

The main access to the project will be northerly on Day Street from Highway 67 then easterly on Vermont Street to the two entries. Day Street has an existing right-of-way width of 72 feet and a paved width of 52 feet from Highway 67 to Vermont Street. From Vermont Street to La Brea Street, the Day Street right-of-way is currently 66 feet; 36 feet

(26 feet paved) on the westerly (Kmart) side of the centerline and 30 feet (approximately 20 feet paved) on the easterly (project) side of the centerline. The easterly (project) half of the Day Street right-of-way will be widened to 36 feet on the northerly side of Vermont Street then tapered to 30 feet approximately 100 feet north of the property corner. The pavement will also be widened to 26 feet on the northerly side of Vermont Street then tapered to 20 feet approximately 90 feet north of the curb return. Asphalt paving will be used with concrete curb and gutters.

The existing rights-of-way widths of Vermont and La Brea Streets bordering the project are 60 feet. The project side of the paving of Vermont and La Brea Streets will be widened to 20 feet from centerline with asphalt paving and concrete curb and gutters.

A five foot meandering sidewalk will be installed on the project side of Day, La Brea and Vermont Streets.